REMARKS

Status of the claims

Claims 1-3, 5-6, 8-9, 12, 15-18, 20-21, 23-24, 27, 30-31, 34-37, 39-41 and 43-53 are pending in the application. Claims 1-3, 5-6, 8-9, 12, 15, 37, 39-41 and 43-52 are withdrawn. Claims 4, 7, 10-11, 13-14, 19, 22, 25-26, 28-29, 32-33, 38 and 42 were previously cancelled.

Rejection under 35 U.S.C,.§103

Claims 16-18, 20-21, 23-24, 27, 30-31, 34-36 and 53 remain rejected under 35 U.S.C.§103 as being obvious over Ritchie et al. in view of Papastavros et al. In the "Response to Arguments" section of the final Office Action, the Examiner states in paragraph 5.2 that "one cannot show nonobviousness by attacking references individually where the rejection is based on combinations of references." While Applicants agree with the Examiner's legal position, it is respectfully noted the references were not "attacked individually", rather the references were discussed individually to explain why one of ordinary skill in the art would not combine the disclosures of the documents in the first place.

The Examiner further states that aspects of the arguments rely on the feature that polyester granules produced in accordance with the invention are advantageously provided with a low styrene monomer residue content, but this feature "is outside of applicant's claimed subject matter". However, the Examiner is legally incorrect in this position. In this regard, the Examiner is directed to MPEP 2141.02, which instructs that inherent properties of a claimed invention are to be considered part of the invention as a whole when determining the patentability of the invention. MPEP 2141.02(V) states, in part,

> **V. DISCLOSED INHERENT PROPERTIES ARE PART OF "AS A WHOLE" INQUIRY**
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> "In determining whether the invention as a whole would have been obvious under 35 U.S.C. 103, we must first delineate the invention as a whole. In delineating the invention as a whole, **we look not only to the subject matter which is literally recited in the claim in question... but also to those properties of the subject matter which are inherent in the subject matter *and* are disclosed in the specification**. . . Just as we look to a chemical and its properties when we examine the obviousness of a composition of matter claim, it is this invention *as a whole,* and not some part of it, which must be obvious under 35 U.S.C. 103." *In re*

> *Antonie*, 559 F.2d 618, 620, 195 USPQ 6,8 (CCPA 1977) (emphasis in original) (citations omitted) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The court found the invention as a whole was the ratio of 0.12 and its inherent property that the claimed devices maximized treatment capacity regardless of other variables in the devices. The prior art did not recognize that treatment capacity was a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result-effective variable.). See also *In re Papesch*, 315 F.2d 381, 391, 137 USPQ 43, 51 (CCPA 1963) ("From the standpoint of patent law, a compound and all its properties are inseparable."). MPEP §2141.02 (bold/underlined emphasis added)

The present invention is drawn to a process for the preparation of solid polyester granules with styrene. While the claims do not explicitly recite the feature of a low styrene monomer residue content, such feature would necessarily be achieved when the claimed method is practiced as recited. The description and examples of the application clearly disclose that the advantageous effect of using the combination of specific peroxides in a specific mole ratio range is to provide for polyester granules having a low styrene monomer residue content. As such, this feature is not outside the claimed subject matter, but is an inherent feature and, as instructed in MPEP 2141.02, must be considered a part of the claimed invention.

In paragraph 5.3 of the Office Action, the Examiner comments on Applicants' arguments regarding a lack of motivation to combine the references. In this regard, the Examiner asserts first that the feature of low styrene is outside the scope of the claims and second that Applicants did not provide any evidence that the process of Ritchie et al. would not require or attain a benefit of the temperature stabilization teaching of Papastavros et al. With regard to the first point, as discussed above, the feature of a low styrene monomer residue content would necessarily be achieved when the claimed method is practiced as recited. As such, this feature is not outside the claimed subject matter, but is an inherent feature.

With regard to the second point asserted by the Examiner, Applicants clarify herein that the arguments presented in the May 17, 2011, response were intended to highlight the significantly different polymerization processes disclosed in each of the prior art documents. Ritchie et al. discloses using suspension or emulsion polymerization to prepare the polyester granules. Such polymerization reactions are conducted in a liquid aqueous reaction medium. In addition, such polymerization processes have unique thermodynamic and kinetic attributes and make use of correspondingly unique reagents and reaction equipment.

In contrast, Papastavros et al. discloses the bulk polymerization of vinyl monomers and unsaturated polymers to produce solid polymeric sheets. One of ordinary skill in the art would readily appreciate that the conditions, reagents and equipment for performing such a bulk polymerization are entirely different to those applied in suspension/emulsion polymerization. More to the point, it is submitted that a person skilled in the art looking to gain insight into techniques for preparing polyester granules by emulsion/suspension polymerization would not turn to a document disclosing the bulk polymerization of monomers and unsaturated polymers for forming solid polymeric sheets. That is the two types of polymerization reactions would not be considered to be "interchangeable" by one skilled in the art, such that one practicing a suspension/emulsion polymerization would look to a technique for bulk polymerization of vinyl monomers and unsaturated polymers to produce solid polymeric sheets for suggestions of how to modify the emulsion/suspension polymerization reaction. Accordingly, the key point here is not that the emulsion/suspension polymerization process used in accordance with the invention may or may not require temperature stabilization, but rather that a person skilled in the art would not consider any teaching relating to the bulk polymerization process of Papastavros et al. to be relevant to the emulsion/suspension polymerization techniques employed in Ritchie et al.

Thus, in summary:

- Ritchie et al. makes no disclosure or suggestion whatsoever of using the combination peroxides as required in the claims of the present application.

- Papastavros et al. does disclose using a combination of peroxides, but this is done in a context of a polymerization process that is entirely different to that in Ritchie et al. and the present invention.

- The Examiner argues that the motivation to combine Ritchie et al. and Papastavros et al. would be that a person skilled in the art would want to apply the temperature stabilization teaching of Papastavros et al. in Ritchie et al. However, it is submitted that a person skilled in the art would not look to a reference disclosing bulk polymerization for forming solid polymer sheets in seeking to develop emulsion/suspension polymerization techniques for preparing polyester granules.

Furthermore, in the unlikely event that the disclosure of these two cited prior art documents was combined by a person skilled in the art, it is submitted that the concept of

temperature stabilization of the bulk polymerization according to Papastavros et al. would not be deemed relevant to the emulsion/suspension polymerization systems employed in Ritchie et al. More specifically, the thermodynamic properties of emulsion/suspension polymerizations are unique in view of the large mass of the continuous aqueous phase which functions as a heat sink, compared to the bulk mass heat retention problems that occur in bulk polymerization. Accordingly, since the temperature stabilization teaching of Papastavros et al. is not relevant to the invention disclosed in Ritchie et al., it is submitted there would be no motivation at all for a person skilled in the art to apply the combined peroxide system disclosed in Papastavros et al. in the polymerization process disclosed in Ritchie et al.

In addition, both Ritchie et al. and Papastavros et al. fail to disclose or suggest any advantage whatsoever that may be derived by applying a specific peroxide combination at a specific mole ratio in a process of preparing polyester granules, as required by the instant claims. As noted above, Applicants surprisingly found that the claimed peroxide combination can advantageously provide for polyester granules having a low styrene monomer residue content. Again it is noted that since this is an inherent property achieved by the claimed method, this property is not outside the scope of the claims.

As such, the instant invention is not obvious over Ritchie et al. combined with Papastavros et al. and withdrawal of the rejection is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact MaryAnne Armstrong, PhD, Registration No. 40069, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

By _____

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